

Notice of Allowability

Application No.

10/067,424

Examiner

Matthew C. Landau

Applicant(s)

LU ET AL.

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response filed August 23, 2007.
2. ☒ The allowed claim(s) is/are 1-14 and 16-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gary Edwards (Reg. #41,008) on November 15, 2007.

The application has been amended as follows:

Claim 16 (Currently Amended): A method for making a high fill factor image array comprising:

providing a plurality of source-drain metal ~~contact-contacts~~;

depositing a first passivation layer over the plurality of source-drain metal ~~contact-contacts~~;

reducing the lateral leakage current between the plurality of source-drain metal contacts in the high fill factor image array by depositing a second passivation layer over the first passivation layer, the second passivation layer being thinner than the first passivation layer;

opening a plurality of via holes ~~hole~~ through the first and second passivation layers to expose the plurality of source-drain metal ~~contact-contacts~~;

depositing a layer of conductive material on the plurality of source-drain metal ~~contact-contacts~~ contacts, such that the layer of conductive material makes electrical contact with the plurality of source-drain metal ~~contact-contacts~~;

depositing a first doped a-Si layer as an optically active layer on the layer of conductive material;

patterning the a-Si layer and the layer of conductive material to form ~~[[a]]~~collection ~~electrodes-electrode~~;

depositing sensor material comprising a continuous layer of i a-Si over the collection electrode and at least a portion of the second passivation layer;

depositing a continuous layer of doped a-Si over the continuous layer of i a-Si;
depositing a conductive layer over the continuous layer of doped a-Si; and

patterning conductive layer to form an upper electrode.

Response to Arguments

Applicant's arguments, see page 19 (2nd paragraph) of the Appeal Brief, filed August 23, 2007, with respect to the pending claims have been fully considered and are persuasive. Further, it should be noted that the Examiner had indicated that the AAPA provided a reason for having a silicon oxide layer at the interface with the a-Si (to reduce leakage current). However, upon a closer reading of the AAPA, it is apparent that the AAPA teaches silicon oxide is advantageous when compared to using oxynitride. Ishaque teaches using an organic insulator, not oxynitride. Therefore, when combining the organic insulator taught by Ishaque with the device of the AAPA, there is no motivation of record to suggest why one of ordinary skill in the art would additionally include a silicon oxide layer. Therefore, the rejections of claims 7-14 and 16-19 have been withdrawn.

Allowable Subject Matter

Claims 7-14 and 16-19 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record, either singularly or in combination, does not disclose or suggest the combination of limitations including the step of depositing a second passivation layer over the first passivation layer, the second passivation layer being thinner than the first passivation layer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 6,384,461 (parent application), 5,463,225, 6,180,529, and 6,229,192.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is 571-272-1731. The examiner can normally be reached on 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Matthew C. Landau
Primary Examiner
Art Unit 2815
11/16/07